

Case study: Middle East

TransCoil rigless-deployed ESP system reduces installation time by more than 50%, brought well back on production

An operator in the Middle East was experiencing long lead times to get a rig on location to retrieve and install electrical submersible pumping (ESP) systems. Yearly rig schedules made it difficult to arrange unplanned workovers, resulting in down time of 3 to 6 months or longer. The operator was looking for an alternative deployment method to eliminate the down time and cost associated with using a rig to retrieve and install ESP systems.

Baker Hughes worked with the operator to develop a solution that not only eliminates the rig but also addresses harsh downhole conditions, including high levels of H₂S in the fluid stream. The **TransCoil™ rigless-deployed ESP system** features an inverted ESP system that connects the motor directly to a new, proprietary power cable configuration that extends the setting depth of rigless-deployed ESP systems. The system metallurgy mitigates potential H₂S damage to the equipment.

The TransCoil technology eliminates the traditional ESP power cable-to-motor connection for even greater system reliability. Plus, unlike wireline deployed ESPs, the fully retrievable TransCoil system does not have an in-well “wet connection,” which requires a rig to pull and replace if the wet connection fails.

The first TransCoil system was installed in a well that had been waiting for a year for a rig to replace an ESP. The installation, including the mobilization time of a Baker Hughes coiled tubing unit, reduced overall installation time by 50% compared to a rig-deployed system. The alternative deployed technology reduced workover costs by approximately 50% compared to rig-deployed operations. The TransCoil ESP system brought 8,000 BOPD back on production without interrupting the operator’s established annual rig schedule.

Challenges

- Excessive down time due to rig availability to pull and install ESP systems
- High rig-based intervention costs

Results

- Reduced ESP installation time by 50%
- Reduced workover costs by more than 50%
- Got well producing 8,000 BOPD back on production after 1 year of down time
- TransCoil rigless deployed ESP system, marking the first installation of its kind
- Innovative cable and inverted ESP design
- Baker Hughes coiled tubing services
- Baker Hughes seal assembly and polished bore receptacle



The TransCoil rigless-deployed ESP system is installed in a well in the Middle East.